CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR PROPOSAL

	REQUISITION NUMBER	DUE DATE	TIME DUE
	2752	04/15/19	noon est
MDOT PROJECT MANAGER Ben Carrigan	JOB NUMBER (JN) 128708	CONTROL SECTION (CS) 31051	

DESCRIPTION

US-41 Reconstruction from East of MacInnes Dr to Isle Royal St, City of Houghton, Houghton County

MDOT PROJECT MANAGER: Check all items to be included in.

WHITE = REQUIRED
** = OPTIONAL

Check the appropriate Tier in the box below

CONSULTANT: Provide only checked items below in proposal when applicable, Best Value scoring criteria is listed separately in the RFP.

**Optional items are determined by the MDOT Project Manager.

☒ **TIER 1 ($100,000 - $250,000)**	☐ **TIER II ($250,000-$1,500,000)**	☐ **TIER III (>$1,500,000)**	
☒	☐	☐	Understanding of Service **
N/A	☐	☐	Innovations
☒	☐	☐	Organizational Chart
☒	☐	☐	Qualifications of Team
N/A	N/A	☐	Quality Assurance/Quality Control **
☒	☐	☐	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation **
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted) Resumes will only be accepted for Best Value Selections.	7 pages (MDOT Forms not counted)	14 pages (MDOT Forms not counted)	Total maximum pages for RFP **not including key personnel resumes.** Resumes limited to 2 pages per key staff personnel.

PROPOSAL AND BID SHEET E-MAIL ADDRESS – mdot-rfp-response@michigan.gov

The Consultants will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. Consultants are responsible for ensuring that MDOT receives the proposal on time.

* Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response.

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100J – Consultant Data and Signature Sheet (Required for all firms performing non-prequalified services on this project.)

(These forms are not included in the proposal maximum page count.)

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be developed and submitted in accordance with the latest Consultant/ Vendor Selection Guidelines for Services Contracts."

RFP SPECIFIC INFORMATION

☒ ENGINEERING SERVICES ☐ BUREAU OF TRANSPORTATION PLANNING ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☒ NO ☐ YES DATED _____ THROUGH _____

☒ **Prequalified Services** – See the attached Scope of Services for required Prequalification Classifications.	☐ **Non-Prequalified Services** – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed. **Form 5100J is required with proposal for all firms performing non-prequalified services on this project.**

☒ **Qualification Based Selection** - Use Consultant/Vendor Selection Guidelines.

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualification Based Selection / Low Bid** – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

☐ **Best Value** – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required – no proposal required.)

BID SHEET INSTRUCTIONS

Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the e-mail address: MDOT-RFP-Response@michigan.gov. Failure to comply with this procedure may result in your bid being rejected from from consideration. MDOT reserves the right to reject any and all bids.

PARTNERSHIP CHARTER AGREEMENT

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the ACEC-MDOTPartnership ,Charter Agreement and are asked to follow all communications, issues resolution and other procedures and guidance's contained therein.

PROPOSAL REQUIREMENTS

Proposals must be submitted for this project electronically. Proposal submittal requirements are listed in *PART IV – INSTRUCTION FOR SUBMITTING PROPOSALS* at the following link Selection Guidelines for Service Contracts

FINANCIAL REQUIREMENTS FOR NON-PREQUALIFIED VENDORS
Financial Requirements for Non-Prequalified Consultants/Vendors

E-VERIFY REQUIREMENTS
E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: http://www.dhs.gov/E-Verify.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

DIGITAL SIGNATURE OF CONTRACTS
On **January 4, 2018**, Contract Services Division implemented the use of CoSign as the exclusive software for digitally signing all consultant contracts and consultant contract related documents. All other digital signing methods are no longer accepted.

Prior to using CoSign, all external partners must apply for a free digital signature user account by submitting a MDOT Digital Signature Certificate Request Form.

MDOT INSURANCE UPDATED 3.9.17

At a minimum, the insurance types and limits identified below, may be required from the selected consultant, prior to contract award.

Required Limits	Additional Requirements
Commercial General Liability Insurance	
Minimal Limits: $1,000,000 Each Occurrence Limit $1,000,000 Personal & Advertising Injury Limit $2,000,000 General Aggregate Limit $2,000,000 Products/Completed Operations	Consultants must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds
Automobile Liability Insurance	
Minimal Limits: $1,000,000 Per Occurrence	
Workers' Compensation Insurance	
Minimal Limits: Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
Minimal Limits: $500,000 Each Accident $500,000 Each Employee by Disease $500,000 Aggregate Disease	
Professional Liability (Errors and Omissions) Insurance	
Minimal Limits: $1,000,000 Per Claim	

The Insurer shall provide at least thirty (30) days written notice of cancellation. The Prime Consultant will be responsible to verify subconsultant(s) compliance with MDOT's insurance requirements.

Michigan Department of Transportation

SCOPE OF SERVICE
FOR
DESIGN SERVICES
Revised on 4.1.2019

CONTROL SECTION(S): 31051

JOB NUMBER(S): 128708PE

PROJECT LOCATION:
The project is located on US-41 from south (east) of Macinnes Drive to Isle Royale St in the City of Houghton, Houghton County. CSMP 14.816-15.879

The project length is 1.063 miles.

CONSULTANT SERVICE DESCRIPTION:

Work involved in this scope of design services consists of: maintenance of traffic/staging plans, temporary signal design, permanent signal design, strain pole foundation design, Transportation Management Plan, signal timing permits for temporary signals, signal timing permit for permanent signal, utility coordination (including creation of the utility conflict matrix and utility.dgn file of existing utility locations), relocation of municipal street lighting, and developing a Construction Critical Path Network schedule.

PROJECT DESCRIPTION:
The proposed project involves the reconstruction of US-41/Townsend Drive/College Ave/Montezuma Ave. US-41/Townsend Drive will be reconstructed from the existing concrete to asphalt pavement joint 300 ft east of MacInnes Drive and continuing to the transition to College Ave. The proposed cross section of Townsend Dr is a boulevard with one through lane and auxiliary lanes. US-41/College Ave will be reconstructed between the transitions to Townsend Dr and Montezuma/Shelden Ave. The proposed cross section of College Ave will be 3 lane with center left turn lane. Eastbound US-41/Montezuma Ave will be reconstructed from the transition to College Ave to the existing concrete to asphalt pavement joist east of Isle Royale St, including the existing concrete pavement at the Franklin St crossover. It is anticipated that Montezuma will be reconstructed with two lanes, one developing into a left turn to Shelden Ave, and one through lane.

ANTICIPATED SERVICE START DATE:
June 2019

ANTICIPATED SERVICE COMPLETION DATE:
April 2021

DBE PARTICIPATION REQUIREMENT: N.A

PRIMARY PREQUALIFICATION CLASSIFICATION(S):
Design – Traffic: Work Zone Maintenance of Traffic
Design – Traffic: Work Zone Mobility & Safety

SECONDARY PREQUALIFICATION CLASSIFICATION(S):
Design – Geotechnical: Advanced
Design – Traffic: Capacity & Geometric Analysis
Design – Traffic: Signal
Design – Traffic: Signal Operations
Design – Utilities: Municipal
Design – Utilities: Roadway Lighting
Design - Landscape Architecture

PREFERRED QUALIFICATIONS AND CRITERIA (FOR NON-CLASSIFIED SERVICES):

1) UTILITY COORDINATION
The Consultant shall be responsible for project Utility Coordination. See attached "Scope of Services for Utility Coordination".

MDOT PROJECT ENGINEER MANAGER:

Ben Carrigan – Traffic and Safety Engineer
MDOT Superior Region – Ishpeming TSC
100 South Westwood Drive
Ishpeming, MI 49849
Phone Number: (906) 485-6322 ext 115
Fax Number: (906) 485-4878
E-mail: carriganb@michigan.gov

CONSTRUCTION COST:

A. The estimated cost of construction is:

1.	**Mainline Pavement**	**$3,334,405**
2.	**Environmental**	**$ 13,485**
3.	**Drainage**	**$1,039,022**
4.	**Non-Motorized**	**$ 597,642**
5.	**Detours and Maintaining Traffic**	**$ 293,850**
6.	**Permanent Pavement Markings/Signs/Signals**	**$ 173,244**
7.	**Miscellaneous**	**$1,069,144**

B. The estimated cost of real estate is: $100,000

The above construction total is the amount of funding programmed for this project. The Consultant is expected to design the project within the programmed amount.

If at any time the estimated cost of construction varies by more than 5% of the current programmed amount, then the Consultant will be required to submit a letter to the MDOT Project Manager justifying the changes in the construction cost estimate.

REQUIRED MDOT GUIDELINES AND STANDARDS:

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Published MDOT Design Advisories, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.).

The Consultant is required to use the MDOT Current Version of Bentley Microstation/GEOPAK or PowerGEOPAK (published at Section 2.2.2 of the Design Submittal Requirements) with the current MDOT workspace (published at Section 2.2.1 of the Design Submittal Requirements). 3D Models are required for all applicable projects. See Chapter 2 of the Design Submittal Requirements for a complete listing of applicable projects. The consultant shall comply with all MDOT CADD standards and file naming conventions.

MDOT RESPONSIBILITIES:

A. Schedule and/or conduct the following:
   1. Project related meetings
   2. Base Plan Review
   3. The Plan Review
   4. Omissions/Errors/Check
   5. Final AP Preconstruction item cost estimates

B. Furnish pertinent reference materials.

C. Provide Design Survey information.

D. Furnish prints of an example of a similar project and old plans of the area, if available. Furnish the E.A.

E. Obtain all permits for the project as outlined in previous section.

F. Furnish FTP site for software download and instructions for the MDOT Stand Alone Proposal Estimator's Worksheet (SAPW).

CONSULTANT RESPONSIBILITIES:

Complete the design of this project including, but not limited to the following:

The Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job and perform field operations in accordance with the Department's Personal Protective Equipment (PPE) policy as stated in the MDOT Guidance Document #10118.

Meet with the MDOT Project Manager to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the design by the project plan completion date. Attention shall be given to critical target dates that may require a large lead time, such as geotechnical requirements, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.

A. Prepare staging plans and special provision for maintaining traffic during construction.

B. Compute and verify all plan quantities for the maintainenace of traffic during construction.

C. Prepare an in-depth Transportation Management Plan (TMP) for the project.

D. Perform mobility analysis on an in-depth Transportation Management Plan (TMP) for the projet.

E. Prepare staging plans and special provisions for maintaining traffic during construction.

F. Design and prepare plans and special provisions for the reconstruction of the existing signal.

G. Design and prepare plans and special provisions for any temporary signal needed for the proposed project construction. Complete signal timing permits for the temporary signal and any permanent signal within the construction influence area.

H. The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate authorization for those services will be issued.

I. Maintain a Design Project Record in ProjectWise, which includes a history of significant events (changes, comments, etc.) which influenced the development of the maintenance of traffic and signal design plans, dates of submittals and receipt of information.

J. The Consultant shall prepare and submit in ProjectWise (in PDF format) a CPM network for the construction of this project.

K. For all discussions in regards to the maintenance of traffic, the Consultant representative shall record the minutes and submit in ProjectWise (in PDF format), for all project related meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees. MDOT will provide and distribute official meeting minutes for The Plan Review Meeting.

L. The Consultant will provide to MDOT, by entering into MDOT ProjectWise at the scheduled submittal dates, electronic documents (in PDF format) of the required specifications and plan set materials for distribution by MDOT for all reviews for this project. This will only be for electronic documents prepared by the Consultant.

M. Attend any project-related meetings as directed by the MDOT Project Manager.

N. Attend information meetings (i.e., public hearings, open houses, etc.) with the public and public officials to assist in responding to concerns and questions. May require the preparation of displays such as maps, marked-up plans, etc.

O. The MDOT Project Manager shall be the official MDOT contact person for the Consultant **and shall be made aware of all communications regarding this project**. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.

P. The Consultant shall contact the MDOT Project Manager whenever discoveries or design alternatives have the potential to require changes in the scope, limits, quantities, costs, or right-of-way of the project.

Q. The Consultant shall be responsible for obtaining and showing on the plans the location and names of all existing utilities within the limits of the project. In the course of resolving utility conflicts, the Consultant shall make modifications to the plans or design details and provide assistance as directed by the MDOT Utility Coordinator and/or Project Manager. The Consultant shall attend any utility meetings called to ensure that the concerns are addressed on the plans involving utilities. The Consultant shall assist in the review of utility permit requests to ensure compatibility with the project.

R. The Consultant shall be responsible for all traffic control required to perform the tasks as outlined in this Scope of Design Services.

S. The Consultant shall be responsible for obtaining up to date access permits and pertinent information for tasks in MDOT Right of Way (ROW).
This information can be obtained through Utilities/Permits in the Development Services Division

T. On the first of each month, the Consultant Project Manager shall submit in ProjectWise a monthly project progress report to the Project Manager.

DELIVERABLES:

The Consultant shall enter in MDOT ProjectWise, in the appropriate folders all electronic files associated with the project in their native format (spreadsheets, CADD files, GEOPAK files, Roadway Templates etc.) as directed by the MDOT Project Manager or as part of each milestone submittal at a minimum. All CADD/GEOPAK files shall be created and identified with standard MDOT file names. It is the Consultant's responsibility to obtain up to date MicroStation and GEOPAK seed/configuration files necessary to comply with MDOT's CADD standards which are published monthly to the MDOT website. Any CADD/GEOPAK files that do not conform to MDOT standards will be returned to the Consultant for correction at the Consultant's expense.

Proposal documents shall be submitted, to MDOT ProjectWise, in the appropriate folders, in their native format with standard naming conventions as well as combined into one PDF file in the sequence specified by MDOT. To provide text search capabilities the combined proposal shall be created by converting native electronic files to PDF. Scanning to PDF is discouraged except in instances where it is necessary to capture a legally signed document or a hard copy version of a document is all that exists.

Plan sheets shall be submitted to MDOT ProjectWise in the appropriate folders in a set in PDF 11" x 17" format. For final Plan Turn-In, a title sheet shall be printed, signed, sealed, and then scanned for inclusion with the PDF set. The original title sheet shall be sent to the MDOT Project Manager

Reference Information Documents (RID) shall be entered into MDOT ProjectWise in the appropriate folder with standard naming conventions and content at milestone submittals as defined by Chapter 4 of the Design Submittal Requirements. The RID files included will depend on the design survey deliverables and project template (See Chapter 2 of the Design Submittal Requirements). These files could include but are not limited to: CADD, existing terrain, proposed cross sections, 3D models and files generated for Automated Machine Guidance (AMG) and automated inspection/stakeout activities.

Stand Alone Proposal Estimator's Worksheet (SAPW) or the Project Quantity Spreadsheet (PQS) shall be used to generate the xml files necessary for import into the AP Preconstruction bid letting software. The .xml files shall be entered into MDOT ProjectWise in the appropriate folder.

The project removal, construction, and profile sheets will require a scale of **1"=80' or as approved by the Project Manager.** See Section 1.02.12 of the Road Design Manual for further direction.

All plans, special provisions, estimates, and other project related items shall meet all MDOT requirements and detailing practices (i.e., format, materials, symbols, patterns, and layout) or as otherwise directed by the Project Manager. All plans, specifications, and other project related items are subject to review and approval by MDOT.

PROJECT SCHEDULE:

The Consultant shall use the following events to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports.

MDOT Preconstruction Tasks Consultant Checklist Planisware Form Only

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

Version 15 Updated 09-11-2017

For questions on specific tasks, refer to the Preconstruction Task Manual located on the MDOT Website. For assistance in accessing this manual, please contact:
Dennis Kelley: (517) 373-4614

Please indicate with a check in the box next to each task number whether you believe that task will require consultant involvement on the job. Milestones (a specific event at a point in time) are italicized and underlined. See the Preconstruction Task Manual for more details. Scheduling assistance may be accomplished with estimated completion dates. While not part of Planisware, an Authorization Milestone and Post-Design Tasks have been included for your reference.

STUDY (EARLY PRELIMINARY ENGINEERING)

YES	NO	PRECONSTRUCTION TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
		CONSULTANT CONTRACT AUTHORIZATION/EXECUTION		/ /
		INFORMATION GATHERING/STUDIES		
☐	☒	1115	Traffic Data Collection for Studies	/ /
☐	☒	1120	Prepare Traffic Analysis Report for Studies	/ /
☐	☒	1125	Traffic Capacity Analysis for Studies	/ /
☐	☒	1155	Request/Perform Safety Analysis for Studies	/ /
☐	☒	1300	Traffic Impact Study	/ /
☐	☒	1350	Determine Need for Interstate Access Change Request	/ /
☐	☒	1400	Feasibility Study	/ /
☐	☒	1500	Corridor Study	/ /
☐	☒	1555	Interstate Access Change Request	/ /
☐	☒	*155M*	*FHWA Approval of Interstate Access Change Request*	/ /
☐	☒	1600	Access Management Study Plan	/ /
☐	☒	1700	Other Miscellaneous Studies	/ /
		EPE SCOPING ANALYSIS		
☐	☒	2100	Scope Verification and Initiation of EPE Activities	/ /
☐	☒	2115	Prepare Traffic Analysis Report for EPE/Design	/ /
☐	☒	2120	Traffic Data Collection for EPE/Design	/ /
☐	☒	2125	Traffic Capacity Analysis for EPE/Design	/ /
☐	☒	2130	Prepare Project Purpose and Need	/ /
☐	☒	*213M*	*Concurrence by Regulatory Agencies with the Purpose and Need*	/ /

☐	☒	2140	Develop and Review Illustrative Alternatives	/ /
☐	☒	2155	Request/Perform Safety Analysis for EPE/Design	/ /
☐	☒	2160	Prepare and Review EIS Scoping Document	/ /
☐	☒	*216M*	*Public Information Meeting*	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

STUDY (EARLY PRELIMINARY ENGINEERING) (cont'd)

YES	NO	PRECONSTRUCTION TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
		EPE DRAFT ANALYSIS		
☐	☒	2310	Conduct Technical SEE Studies	/ /
☐	☒	2311	Cultural Resources Survey	/ /
☐	☒	2312	Recreational Survey – Section 4(f)/6(f)	/ /
		EPE DRAFT ANALYSIS (cont'd)		
☐	☒	2313	Endangered Species Survey	/ /
☐	☒	2314	Wetland Assessment	/ /
☐	☒	2315	Wetland Mitigation	/ /
☐	☒	2316	Other Technical Reports	/ /
☐	☒	2321	Prepare for Aerial Photography	/ /
☐	☒	2322	Finish/Print Aerial Photography	/ /
☐	☒	2330	Collect EPE Geotechnical Data	/ /
☐	☒	2340	Develop and Review Practical Alternatives	/ /
☐	☒	*233M*	*Aerial Photography Flight*	/ /
☐	☒	2360	Prepare and Review EA	/ /
☐	☒	*236M*	*Approval of EA by FHWA*	/ /
☐	☒	2370	Prepare and Review Draft EIS	/ /
☐	☒	*237M*	*Approval of Draft EIS by FHWA*	/ /
☐	☒	2380	Distribute EA	/ /
☐	☒	*238M*	*Public Hearing for EA*	/ /
☐	☒	2390	Distribute DEIS	/ /
☐	☒	*239M*	*Public Hearing for DEIS*	/ /
		EPE FINAL ANALYSIS		
☐	☒	2510	Determine and Review Recommended Alternative	/ /
☐	☒	*250M*	*Concurrence by Reg Agencies with Recom Alternatives*	/ /
☐	☒	2525	Prepare and Review Engineering Report	/ /
☐	☒	2530	Prepare and Review Request for FONSI	/ /
☐	☒	*252M*	*Approval of FONSI by FHWA*	/ /
☐	☒	2540	Prepare and Review FEIS	/ /
☐	☒	*254M*	*Approval of FEIS by FHWA*	/ /
☐	☒	2550	Obtain ROD	/ /
☐	☒	*255M*	*ROD Issued by FHWA*	/ /

☐	☒	2570	ITS Concept of Operations	/ /
			CONTAMINATION INVESTIGATION	
☐	☒	2810	Project Area Contamination Survey (PCS)	/ /
☐	☒	2820	Preliminary Site Investigation (PSI) for Contamination	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING - DESIGN

YES	NO	PRECONSTRUCTION TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
		DESIGN SCOPE VERIFICATION AND BASE PLAN PREPARATION		
☐	☒	3130	Verify Design Scope of Work and Cost	/ /
☐	☒	3310	Prepare Aerial Topographic Mapping	/ /
☐	☒	3320	Conduct Photogrammetric Control Survey	/ /
☐	☒	3321	Set Aerial Photo Targets	/ /
☐	☒	3325	Geotechnical Structure Site Characterization	/ /
☐	☒	3330	Conduct Design Survey	/ /
☐	☒	3340	Conduct Structure Survey	/ /
☐	☒	3350	Conduct Hydraulics Survey	/ /
☒	☐	3360	Prepare Base Plans	05/17/2019
☐	☒	*311M*	*Utility Notification*	/ /
☐	☒	3365	Pre-Conceptual ITS Design and Meeting	/ /
☐	☒	3370	Prepare Structure Study	/ /
☐	☒	3375	Conduct Value Engineering Study	/ /
☒	☐	3380	Review Base Plans	06/18/2019
☐	☒	3385	Preliminary Load Rating	/ /
☒	☐	*332M*	*Base Plan Review (Pre-GI Inspection)*	09/06/2019
☒	☐	3390	Develop the Maintaining Traffic Concepts	06/17/2019
		PRELIMINARY PLANS PREPARATION		
☒	☐	3500	Develop Transportation Management Plan	06/03/2020
☐	☒	3510	Perform Roadway Geotechnical Investigation	~~12/20/2019~~
☐	☒	3520	Conduct Hydraulic/Hydrologic and Scour Analysis	/ /
☐	☒	3522	Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	~~12/20/2019~~
☐	☒	3530	Geotechnical Foundation Engineering Report	/ /
☐	☒	3535	Conduct Str. Review for Arch. & Aesthetic Improvements	/ /
☒	☐	3540	Develop the Maintaining Traffic Plan	12/20/2019
☒	☐	3551	Prepare/Review Preliminary Traffic Signal Design Plan	12/20/2019
☒	☐	3552	Develop Preliminary Pavement Marking Plan	12/20/2019
☒	☐	3553	Develop Preliminary Non-Freeway Signing Plan	12/20/2019
☐	☒	3554	Develop Preliminary Freeway Signing Plan	/ /

☒	☐	3555	Prepare/Review Preliminary Traffic Signal Operations	11/27/2019
☐	☒	3570	Prepare Preliminary Structure Plans	/ /
☒	☐	3580	Develop Preliminary Plans	12/20/2019
☐	☒	3585	Final ITS Concept Design and Meeting	/ /
☐	☒	3590	Review The Plans	01/24/2020
☒	☐	*352M*	*THE Plan Review Meeting*	01/12/2020
☐	☒	3595	Conduct ITS Structure Foundation Investigation	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING - DESIGN (cont'd)

YES	NO	PRECONSTRUCTION TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
		UTILITIES		
☒	☐	3610	Compile Utility Information	12/06/2019
☐	☒	3615	Compile ITS Utility Information	/ /
☐	☒	3650	Coordinate RR Involvement for Grade Separations	/ /
☐	☒	3655	Coordinate RR Involvement for At-Grade Crossings	/ /
☒	☐	3660	Resolve Utility Issues	05/05/2020
☒	☐	*360M*	*Utility Conflict Resolution Plan Distribution*	12/09/2019
☒	☐	*361M*	*Utility Meeting*	02/17/2020
☒	☐	3670	Develop Municipal Utility Plans	05/05/2020
☐	☒	3672	Develop Special Drainage Structures Plans	/ /
☒	☐	3675	Develop Electrical Plans	05/05/2020
☐	☒	3680	Preliminary ITS Communication Analysis	/ /
☐	☒	3690	Power Design (Power Drop in Field)	/ /
		MITIGATION/PERMITS		
☐	☒	3710	Develop Required Mitigation	01/27/2020
☐	☒	3720	Assemble Environmental Permit Applications	01/27/2020
☐	☒	3730	Obtain Environmental Permit	05/05/2020
		FINAL PLAN PREPARATION		
☐	☒	3815	Geotechnical Structure Design Review	/ /
☒	☐	3821	Prepare/Review Final Traffic Signal Design Plan	05/05/2020
☒	☐	3822	Complete Permanent Pavement Marking Plan	05/05/2020
☒	☐	3823	Complete Non-Freeway Signing Plan	05/05/2020
☐	☒	3824	Complete Freeway Signing Plan	/ /
☒	☐	3825	Prepare/Review Final Traffic Signal Operations	04/14/2020
☒	☐	3830	Complete the Maintaining Traffic Plan	05/05/2020
☒	☐	3840	Develop Final Plans and Specifications	05/05/2020
☒	☐	*380M*	*Plan Completion*	07/01/2020

☐	☒	3850	Develop Structure Final Plans and Specifications	/ /
☐	☒	3875	Final Load Rating	/ /
☐	☒	3900	Omissions/Errors Check (OEC) Review	/ /
☒	☐	*389M*	*Plan Turn-In*	10/02/2020
☐	☒	3880	CPM Quality Assurance Review	/ /
☐	☒	3890	Final ITS Communication Analysis	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

PRELIMINARY ENGINEERING – RIGHT OF WAY

YES	NO	PRECONSTRUCTION TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
		EARLY RIGHT OF WAY WORK		
☐	☒	4100	Real Estate Pre-Technical Work (combines 411M, 4120)	06/26/2019
☐	☒	4150	Real Estate Technical Work (combines 4130, 4140)	02/05/2020
☐	☒	*413M*	*Approved Marked Final ROW*	12/11/2019
		ROW APPRAISAL		
☐	☒	4350	Real Estate Appraisals (combines 4411, 4412, 4413, 4420)	02/05/2020
		ROW ACQUISITION		
☐	☒	4450	Real Estate Acquisitions (combines 4430, 4710, 4720)	06/03/2020
☐	☒	4510	Conduct Right Of Way Survey & Staking	06/03/2020
☐	☒	*442M*	*ROW Certification*	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

POST LETTING/AWARD TASKS (for reference only)

YES	NO	PRECONSTRUCTION TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
☐	☒	4810	Complete Acquisition Process	/ /
☐	☒	4820	Manage Excess Real Estate	/ /
☐	☒	4830	Provide Post-Certification Relocation Assistance	/ /
☐	☒	4910	Conduct ROW Monumentation	/ /
☐	☒	5010	Construction Phase Engineering and Assistance	/ /
☐	☒	5020	Prepare As-Built Drawings	/ /

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment

typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418. MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848. MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

ATTACHMENT A

SCOPE OF SERVICE
FOR
UTILITY COORDINATION

The Consultant is directly responsible for all aspects of the project's utility coordination. The Consultant is expected to provide technical assistance to MDOT, utilities and other stakeholders regarding utility identification, project utility coordination and utility conflict resolution.

A utility is defined as any privately, publicly, municipal or cooperatively owned line, facility, or system for producing, transmitting, or distributing communication, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, or any other similar commodity, including any fire or police signal system or street lighting system.

MDOT shall -

- Provide a preliminary list of utilities, with contact information, that may have facilities located within the project limits. This list may not be 100% accurate and/or complete.
- Provide assistance, if necessary, in contacting utilities to obtain facility records.
- Provide Consultant with utility responses and facility records if utility information solicitation has been performed.
- Organize and host a kick-off meeting with Consultant and MDOT prior to Consultant beginning utility coordination services.

Consultant shall -

- Develop and Maintain a Utility Conflict Matrix* spreadsheet and deliver as the bi-weekly status report.
- Develop the utility.dgn file of wxisting utility locations.
- Distribute form letters, plans, etc. as outlined in 14.16 (Request for Utility Information) and 14.26 (Distribution of Preliminary Plans to Utilities and Utility Coordination Meeting) of the MDOT Road Design Manual.
    - Identify existing/proposed utility owners and facilities.
    - Collect and compile utility responses.
    - Follow up with non-responsive utilities.
- Schedule and conduct utility meetings for the resolution of conflicts between utility facilities and proposed construction.
    - Identify conflicts, discuss possible design modifications, develop utility relocation schemes, discuss reimbursable relocations, and discuss project scope and schedule.
    - Identify the utility's design and construction contacts and ensure the plan's note sheet utility contact information is accurate.
    - Record meeting minutes and distribute to all attendees.
- Schedule and conduct field meetings with individual utilities to resolve conflicts.
- Schedule and conduct meetings convened for the purpose of utility betterments.

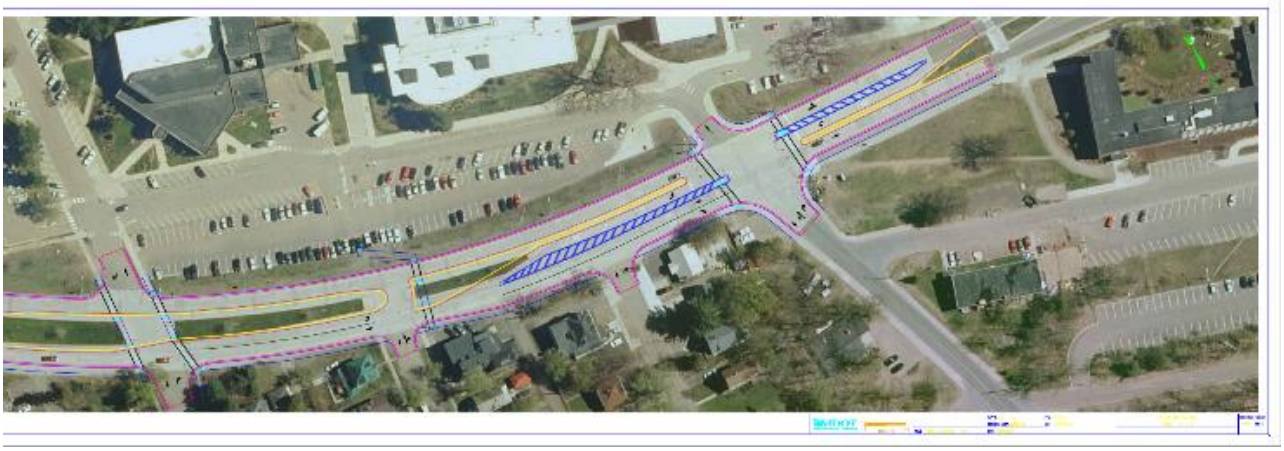
- Ensure municipal utility relocations, betterments and reimbursements follow Chapter 9 of the MDOT Road Design Manual.
- Identify eligible reimbursable utility relocations, for public/private utilities, as outlined in 23 Code of Federal Regulations (CFR) Part 645 Subparts A and B – Utilities and ensure 23 CFR Part 635.410 - Buy America Requirements are met.
    - Collect documentation to evaluate reimbursable utility relocations.
- Evaluate utility relocation plans for compatibility with the proposed project.
- Ensure utility relocation schedules do not impact the project schedule.
- Confirm utility relocation permit applications are submitted to the TSC.
- Prepare the "Utilities Status Report" (MDOT Form 2286) and "Notice to Bidders - Utility Coordination" documents.
- Track and monitor utility relocation progress.

Deliverables (Provided to the TSC Utility Coordinator and Project Manager):

- Courtesy copies of all correspondence with the utilities
- Utility Conflict Matrix
- Utility coordination meeting minutes
- Reimbursable utility relocation documentation
- Utilities Status Report and Notice to Bidders - Utility Coordination
- Utility.dgn file of existing utility locations

* The Utility Conflict Matrix (UCM) is located on the http://www.trb.org/Main/Blurbs/166731.aspx website under Training materials > Prototype 1 – Stand-alone UCM. The UCM was developed as part of the Transportation Research Board's (TRB) second Strategic Highway Research Program (SHRP 2) Report S2-R15B-RW-1: Identification of Utility Conflicts and Solutions which provides concepts and procedures to identify and resolve utility conflicts. Tools described in the report include utility conflict matrices that enable users to organize, track, and manage conflicts that frequently arise.

31051-128708C
Conceptual Plan



ATTACHMENT E
31051-128708C
Traffic Information

A Synchro model was developed by MDOT model has been developed for US-41/Townsend Dr from MP 14.8 to 15.2, and will be made available in electronic format upon request.

Please contact:

Ben Carrigan
Ishpeming TSC Traffic and Safety Engineer
(906) 485-6322 ext 115
carriganb@michigan.gov

MDOT Michigan Department of Transportation

OFFICE MEMORANDUM

DATE: 15th March 2018

TO: Jeff Barsch, Superior Region.

FROM: Anu Sikka, Statewide Model Unit.

SUBJECT: TAR # 3069: US-41, CS 31051, JN 128708EPE

Traffic Information

The following tables contain the requested traffic information for US-41 NB and SB (Townsend Drive and College Avenue) from Macinnes Drive to Franklin Street and US-41 SB (E. Montezuma Avenue.) from Isle Royal Street to Franklin Street (CS 31051 MP 7.50-8.432) in Houghton County. Current traffic volumes were calculated from hose counts taken between 2005 and 2017. A growth rate of 0.5% was used to calculate future traffic volume. This number is based on past growth, regression analysis and population projections in Houghton County.

US-41, 1st Street to Pearl Street (MP 14.69-15.37)

	2018	2021	2041
Total Average Daily Traffic (ADT)	13,300	13,500	14,925
% Commercial of ADT		3%	
Directional ADT	6,925	7,025	7,775
Commercial DDHV	24	25	28
30th High Hour Total (DHV)		12%	

US-41, Pearl Street to Franklin Street (MP 15.37-15.69)

	2018	2021	2041
Total Average Daily Traffic (ADT)	14,825	15,050	16,650
% Commercial of ADT		2%	
Directional ADT	7,725	7,825	8,650
Commercial DDHV	18	19	21
30th High Hour Total (DHV)		12%	

US-41 SB, Franklin Street – Isle Royale (MP 15.69-15.91)

	2018	2021	2041
Total Average Daily Traffic (ADT)	8,450	8,575	9,475
% Commercial of ADT		3%	
Commercial DDHV	30	31	34
30th High Hour Total (DHV)		12%	

US-41 NB, Franklin Street –S JCT M-26 (MP 15.69-16.31)

	2018	2021	2041
Total Average Daily Traffic (ADT)	8,200	8,325	9,200
% Commercial of ADT		3%	
Commercial DDHV	29	30	33
30th High Hour Total (DHV)		12%	

ESAL DATA

	Rigid	Flexible
Growth Rate	0.50%	0.50%
Growth Type	Compound	Compound
Initial Yearly 18-kip ESAL (both directions)	87,220	63,560
Direction Distribution Factor	52%	52%
Lane Distribution Factor	100%	100%
Total 18 Kip Axle Loadings	951,500	693,380

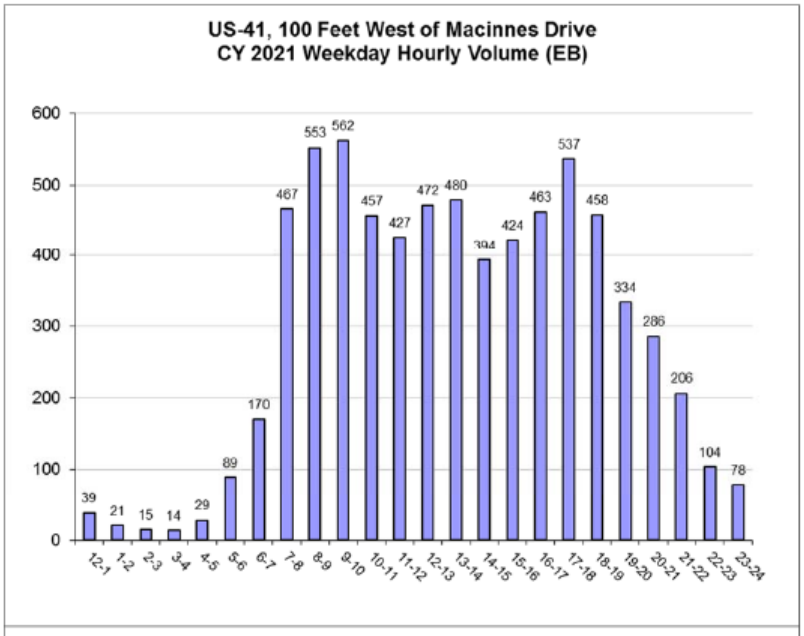
Information for ME design

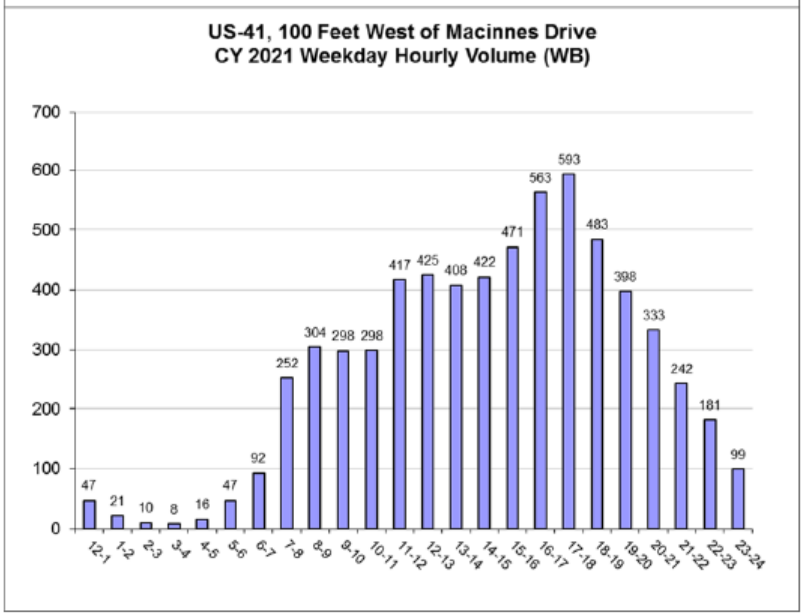
Vehicle Classification Distribution	
4	
5	
6	
7	
8	Use cluster 3
9	
10	
11	
12	
13	
TOTAL	

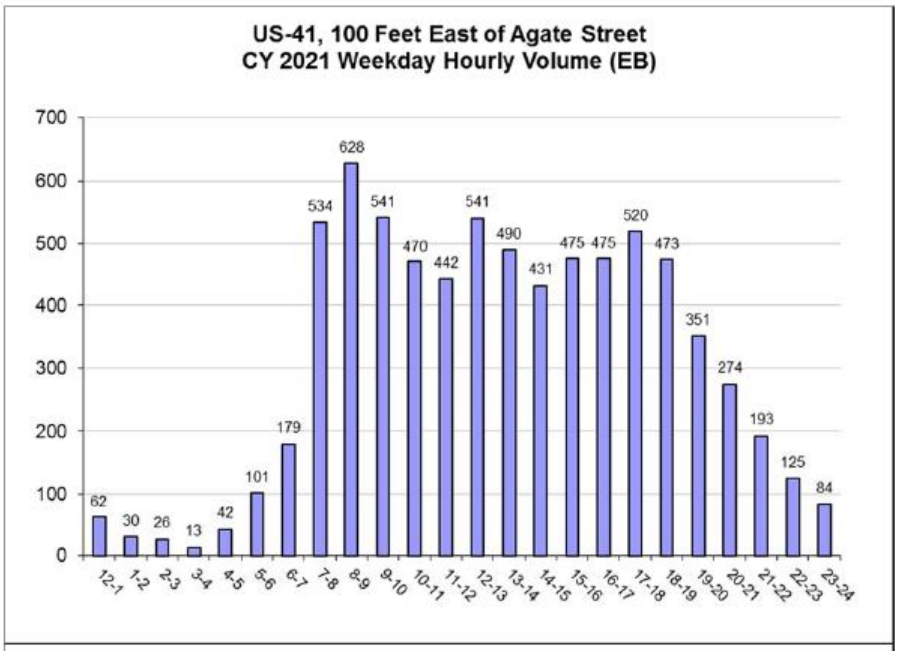
WIM	
Tandem Axle Distribution	Use cluster 5

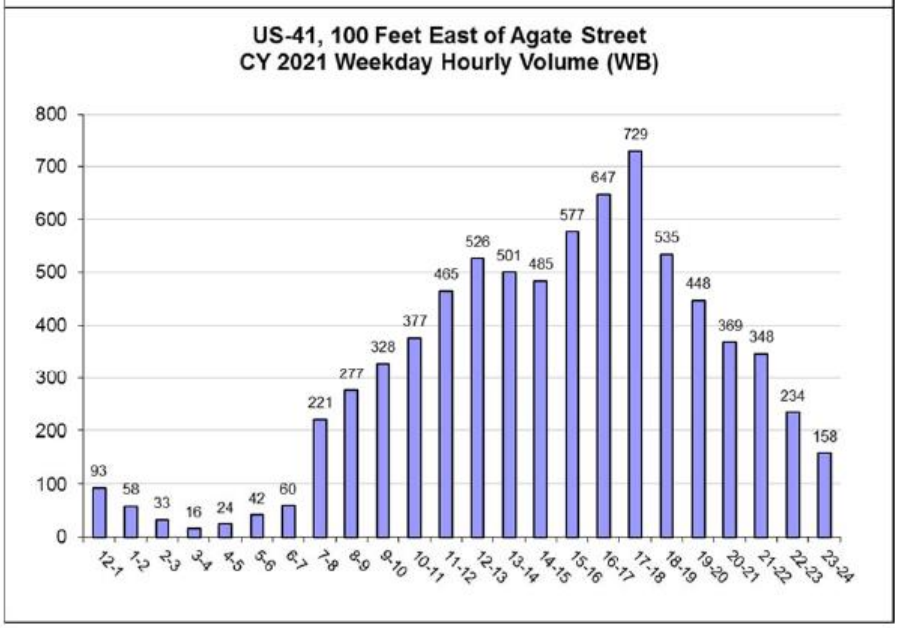
Hourly Adjustment Factors			
100		1300	
200		1400	
300		1500	
400		1600	
500	Use Cluster 2	1700	
600		1800	
700		1900	
800		2000	
900		2100	
1000		2200	
1100		2300	
1200		2400	

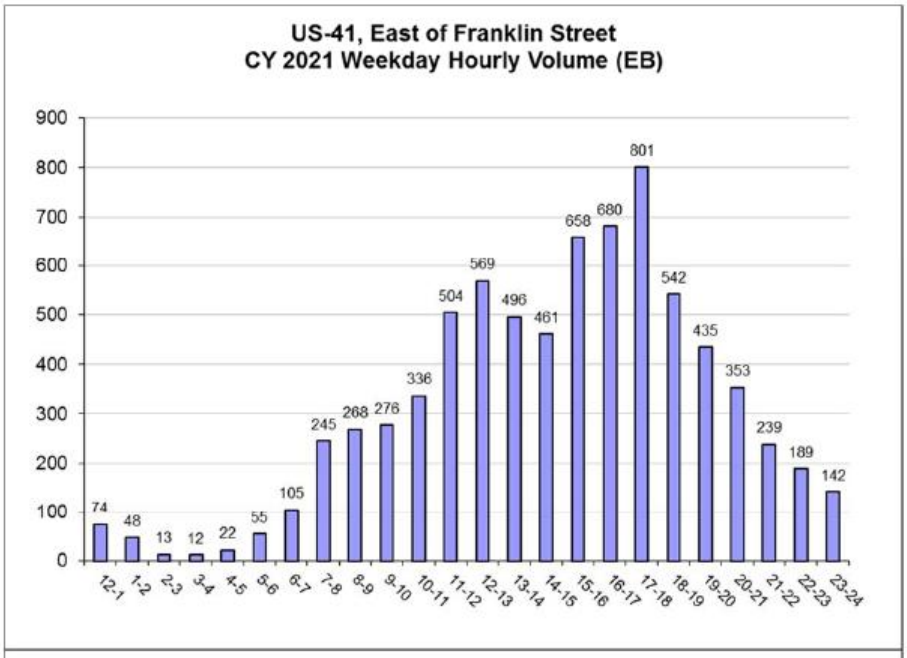
24 Hour Distribution

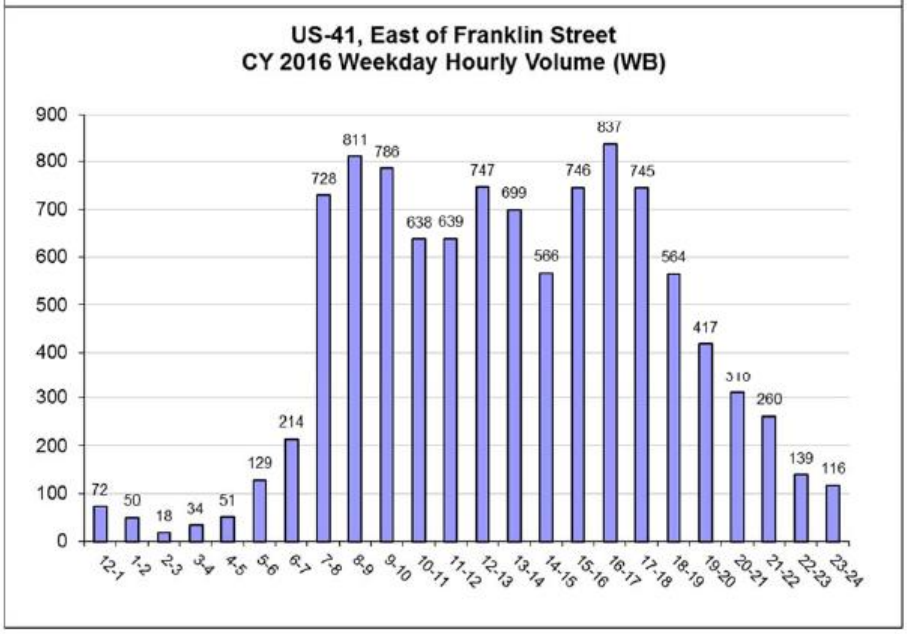





US-41, 100 Feet East of Agate Street
CY 2021 Weekday Hourly Volume (EB)
700
600
500
400
300
200
100
0
62
30
26
13
42
101
179
534
628
541
470
442
541
490
431
475
475
520
473
351
274
193
125
84
12-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9
9-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
20-21
21-22
22-23
23-24


US-41, 100 Feet East of Agate Street
CY 2021 Weekday Hourly Volume (WB)
800
700
600
500
400
300
200
100
0
93
58
33
16
24
42
60
221
277
328
377
465
526
501
485
577
647
729
535
448
369
348
234
158
12-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9
9-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
20-21
21-22
22-23
23-24


US-41, East of Franklin Street
CY 2021 Weekday Hourly Volume (EB)
900
800
700
600
500
400
300
200
100
0
74
48
13
12
22
55
105
245
268
276
336
504
569
496
461
658
680
801
542
435
353
239
189
142
12-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9
9-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
20-21
21-22
22-23
23-24


US-41, East of Franklin Street
CY 2016 Weekday Hourly Volume (WB)
900
800
700
600
500
400
300
200
100
0
72
50
18
34
51
129
214
728
811
786
638
639
747
699
566
746
837
745
564
417
310
260
139
116
12-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9
9-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
20-21
21-22
22-23
23-24

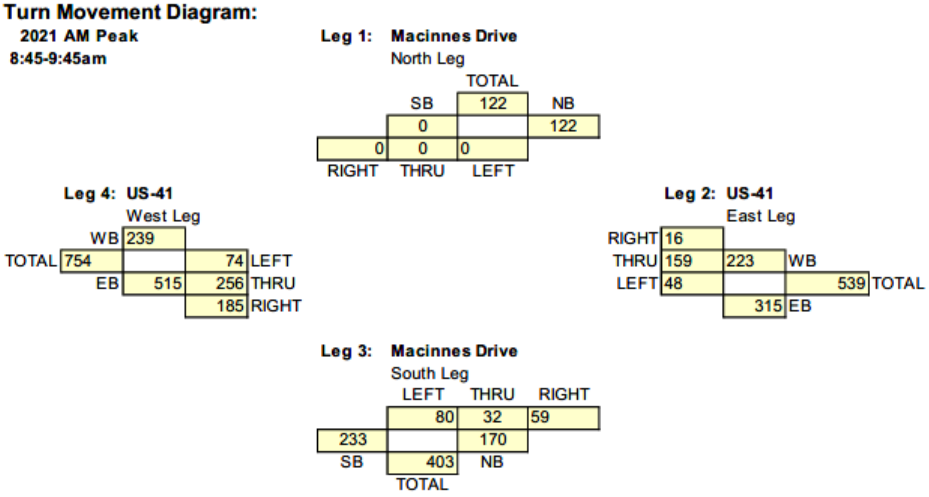
Turning Movement

Macinnes Drive AT US-41

Turn Movement Diagram:

2021 AM Peak

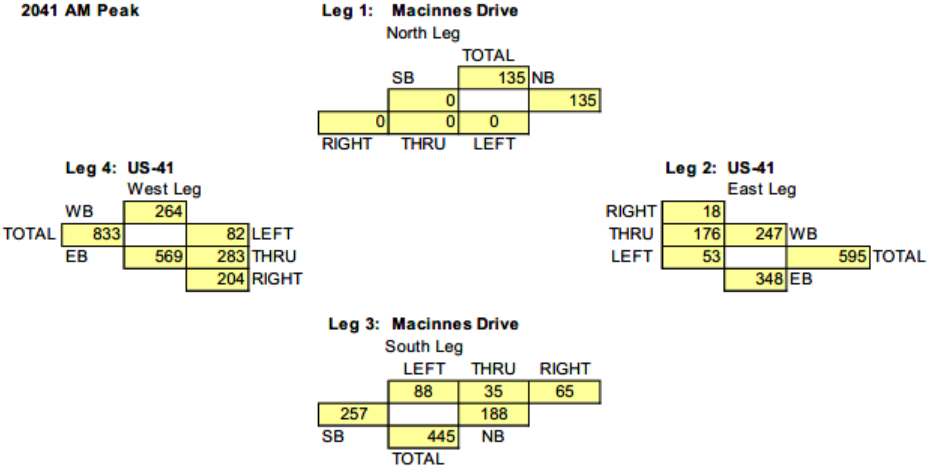
8:45-9:45am



Macinnes Drive AT US-41

Turn Movement Diagram:

2041 AM Peak



Macinnes Drive **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

4.45-5.45pm

Leg 1: Macinnes Drive

North Leg

		TOTAL	
	SB	162	NB
	0		162
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	522	
TOTAL	1056		96 LEFT
	EB	534	306 THRU
			132 RIGHT

Leg 2: US-41

East Leg

RIGHT	28		
THRU	363	477	WB
LEFT	87		863 TOTAL
		386	EB

Leg 3: Macinnes Drive

South Leg

	LEFT	THRU	RIGHT
	159	39	80
218		277	
SB	496	NB	
	TOTAL		

Macinnes Drive **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak

Leg 1: Macinnes Drive

North Leg

		TOTAL	
	SB	179	NB
	0		179
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	577	
TOTAL	1167		106 LEFT
	EB	590	338 THRU
			145 RIGHT

Leg 2: US-41

East Leg

RIGHT	30		
THRU	401	528	WB
LEFT	96		954 TOTAL
		426	EB

Leg 3: Macinnes Drive

South Leg

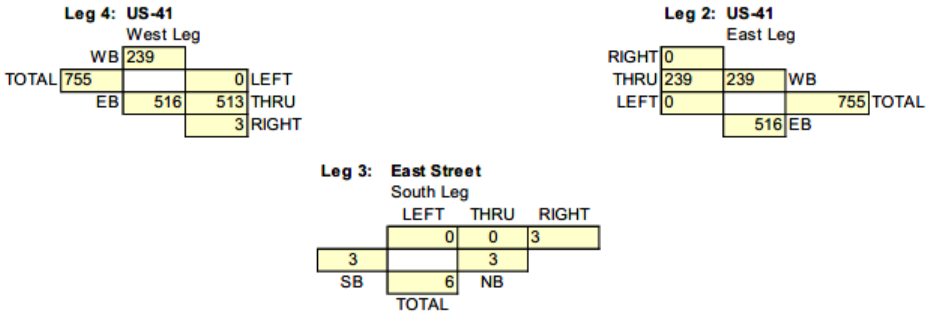
	LEFT	THRU	RIGHT
	176	43	88
241		307	
SB	548	NB	
	TOTAL		

East Street **AT** **US-41**

Turn Movement Diagram:

2021 AM Peak

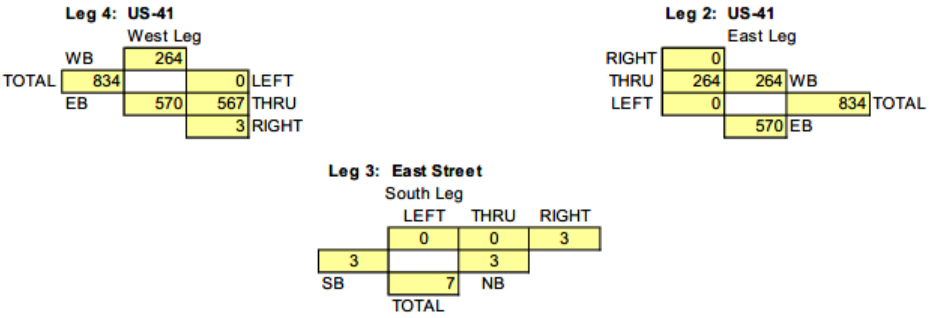
8:45-9:45am



East Street **AT** **US-41**

Turn Movement Diagram:

2041 AM Peak

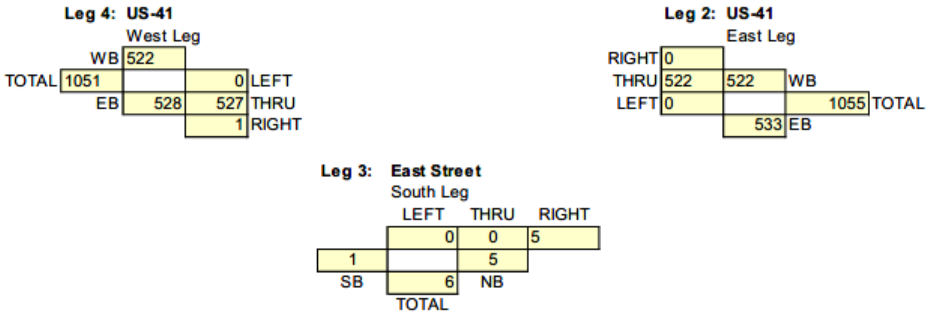


East Street **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

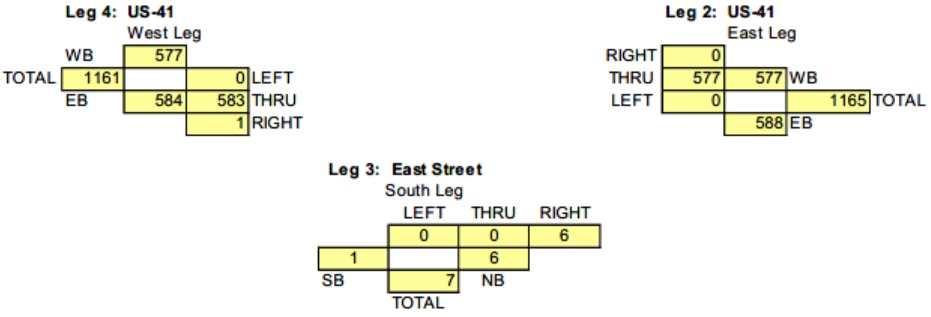
4.45-5.45pm



East Street **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak



Blanche Street **AT** **US-41**

Turn Movement Diagram:

2021 AM Peak

8:45-9:45am

Leg 1: Blanche Street

North Leg

	TOTAL	
SB	1	NB
0		1
0	0	0
RIGHT	THRU	LEFT

Leg 4: US-41

West Leg

	WB 242		
TOTAL 757		1	LEFT
EB	515	514	THRU
		0	RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	241	241	WB
LEFT	0		758 TOTAL
		517	EB

Leg 3: Blanche Street

South Leg

LEFT	THRU	RIGHT	
	1	0	3
0		4	
SB	4	NB	
	TOTAL		

Blanche Street **AT** **US-41**

Turn Movement Diagram:

2041 AM Peak

Leg 1: Blanche Street

North Leg

	TOTAL	
SB	1	NB
0		1
0	0	0
RIGHT	THRU	LEFT

Leg 4: US-41

West Leg

	WB 267		
TOTAL 836		1	LEFT
EB	569	568	THRU
		0	RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	266	266	WB
LEFT	0		837 TOTAL
		571	EB

Leg 3: Blanche Street

South Leg

LEFT	THRU	RIGHT	
	1	0	3
0		5	
SB	5	NB	
	TOTAL		

Blanche Street **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

4.45-5.45pm

Leg 1: Blanche Street

North Leg

		TOTAL	
	SB	2	NB
	0		2
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	529	
TOTAL	1060	2	LEFT
	EB	530	524 THRU
			4 RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	525	527	WB
LEFT	2	1055	TOTAL
		527	EB

Leg 3: Blanche Street

South Leg

	LEFT	THRU	RIGHT
	4	0	3
6		7	
SB	13	NB	
	TOTAL		

Blanche Street **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak

Leg 1: Blanche Street

North Leg

		TOTAL	
	SB	2	NB
	0		2
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	585	
TOTAL	1171	2	LEFT
	EB	586	579 THRU
			5 RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	580	583	WB
LEFT	2	1165	TOTAL
		583	EB

Leg 3: Blanche Street

South Leg

	LEFT	THRU	RIGHT
	5	0	3
7		8	
SB	15	NB	
	TOTAL		

Hubbell Street **AT** **US-41**

Turn Movement Diagram:

2021 AM Peak

8:45-9:45am

Leg 1: Hubbell Street

North Leg

		TOTAL		
	SB	171		NB
	80			92
47	0	33		
RIGHT	THRU	LEFT		

Leg 4: US-41

West Leg

	WB	279		
TOTAL	847		80	LEFT
	EB	568	487	THRU
			2	RIGHT

Leg 2: US-41

East Leg

RIGHT	11			
THRU	231	242	WB	
LEFT	0		761	TOTAL
		519	EB	

Leg 3: Hubbell Street

South Leg

	LEFT	THRU	RIGHT	
	1	1	0	
2		2		
SB	4	NB		
	TOTAL			

Hubbell Street **AT** **US-41**

Turn Movement Diagram:

2041 AM Peak

Leg 1: Hubbell Street

North Leg

		TOTAL		
	SB	189		NB
	88			101
52	0	36		
RIGHT	THRU	LEFT		

Leg 4: US-41

West Leg

	WB	308		
TOTAL	936		88	LEFT
	EB	628	538	THRU
			2	RIGHT

Leg 2: US-41

East Leg

RIGHT	12			
THRU	255	267	WB	
LEFT	0		841	TOTAL
		574	EB	

Leg 3: Hubbell Street

South Leg

	LEFT	THRU	RIGHT	
	1	1	0	
2		2		
SB	5	NB		
	TOTAL			

Hubbell Street **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

4.45-5.45pm

Leg 1: Hubbell Street

North Leg

		TOTAL		
	SB	290		NB
	197			93
155	1	41		
RIGHT	THRU	LEFT		

Leg 4: US-41

West Leg

	WB	670		
TOTAL	1236		72	LEFT
	EB	566	490	THRU
			4	RIGHT

Leg 2: US-41

East Leg

RIGHT	18			
THRU	511	529	WB	
LEFT	0		1060	TOTAL
		530	EB	

Leg 3: Hubbell Street

South Leg

	LEFT	THRU	RIGHT	
	4	2	0	
5		6		
SB	11	NB		
	TOTAL			

Hubbell Street **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak

Leg 1: Hubbell Street

North Leg

		TOTAL		
	SB	320		NB
	218			103
171	1	45		
RIGHT	THRU	LEFT		

Leg 4: US-41

West Leg

	WB	741		
TOTAL	1366		80	LEFT
	EB	626	541	THRU
			5	RIGHT

Leg 2: US-41

East Leg

RIGHT	20			
THRU	565	585	WB	
LEFT	0		1171	TOTAL
		586	EB	

Leg 3: Hubbell Street

South Leg

	LEFT	THRU	RIGHT	
	5	2	0	
6		7		
SB	12	NB		
	TOTAL			

Clark Street **AT** **US-41**

Turn Movement Diagram:

2021 AM Peak

8:45-9:45am

Leg 1: Clark Street

North Leg

		TOTAL	
	SB	3	NB
	0		3
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	280		
TOTAL	853		3	LEFT
	EB	573	567	THRU
			3	RIGHT

Leg 2: US-41

East Leg

RIGHT	0			
THRU	279	279	WB	
LEFT	0		848	TOTAL
		569	EB	

Leg 3: Clark Street

South Leg

LEFT	THRU	RIGHT	
1	0	2	
3		3	
SB	6	NB	
TOTAL			

Clark Street **AT** **US-41**

Turn Movement Diagram:

2041 AM Peak

Leg 1: Clark Street

North Leg

		TOTAL	
	SB	3	NB
	0		3
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	309		
TOTAL	942		3	LEFT
	EB	633	627	THRU
			3	RIGHT

Leg 2: US-41

East Leg

RIGHT	0			
THRU	308	308	WB	
LEFT	0		937	TOTAL
		629	EB	

Leg 3: Clark Street

South Leg

LEFT	THRU	RIGHT	
1	0	2	
3		3	
SB	7	NB	
TOTAL			

Clark Street **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

4.45-5.45pm

Leg 1: Clark Street

North Leg

		TOTAL	
	SB	6	NB
	0		6
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	687	
TOTAL	1248	6	LEFT
	EB	561	553	THRU
		2	RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	679	681	WB
LEFT	2	1236	TOTAL
	555	EB	

Leg 3: Clark Street

South Leg

	LEFT	THRU	RIGHT
	7	0	2
4		9	
SB	13	NB	
	TOTAL		

Clark Street **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak

Leg 1: Clark Street

North Leg

		TOTAL	
	SB	7	NB
	0		7
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	759	
TOTAL	1379	7	LEFT
	EB	620	611	THRU
		2	RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	751	753	WB
LEFT	2	1366	TOTAL
	613	EB	

Leg 3: Clark Street

South Leg

	LEFT	THRU	RIGHT
	8	0	2
5		10	
SB	15	NB	
	TOTAL		

Houghton Avenue **AT** **US-41**

Turn Movement Diagram:

2021 AM Peak

8:45-9:45am

Leg 4: US-41

West Leg

	WB 259		
TOTAL 793		0	LEFT
	EB 534	533	THRU
		1	RIGHT

Leg 2: US-41

East Leg

RIGHT 0			
THRU 259	280	WB	
LEFT 20		851	TOTAL
	571	EB	

Leg 3: Houghton Avenue

South Leg

	LEFT	THRU	RIGHT
	0	0	39
21		39	
SB	60	NB	
	TOTAL		

Houghton Avenue **AT** **US-41**

Turn Movement Diagram:

2041 AM Peak

Leg 4: US-41

West Leg

	WB 286		
TOTAL 876		0	LEFT
	EB 590	588	THRU
		1	RIGHT

Leg 2: US-41

East Leg

RIGHT 0			
THRU 286	309	WB	
LEFT 23		940	TOTAL
	631	EB	

Leg 3: Houghton Avenue

South Leg

	LEFT	THRU	RIGHT
	0	0	43
24		43	
SB	67	NB	
	TOTAL		

Houghton Avenue **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

4.45-5.45pm

Leg 1: Houghton Avenue

North Leg

		TOTAL	
	SB	4	NB
	0		4
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	613	
TOTAL	1107		4 LEFT
	EB	494	473 THRU
			16 RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	613	687	WB
LEFT	73		1248 TOTAL
		561	EB

Leg 3: Houghton Avenue

South Leg

	LEFT	THRU	RIGHT
	0	0	88
90		88	
SB	178	NB	
	TOTAL		

Houghton Avenue **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak

Leg 1: Houghton Avenue

North Leg

		TOTAL	
	SB	5	NB
	0		5
0	0	0	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	677	
TOTAL	1223		5 LEFT
	EB	546	523 THRU
			18 RIGHT

Leg 2: US-41

East Leg

RIGHT	0		
THRU	677	759	WB
LEFT	81		1379 TOTAL
		620	EB

Leg 3: Houghton Avenue

South Leg

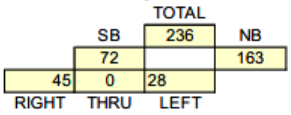
	LEFT	THRU	RIGHT
	0	0	97
99		97	
SB	196	NB	
	TOTAL		

Cliff Drive **AT** **US-41**

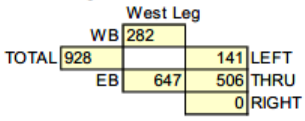
Turn Movement Diagram:

2021 AM Peak
8:45-9:45am

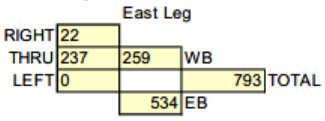
Leg 1: Cliff Drive
North Leg



Leg 4: US-41
West Leg



Leg 2: US-41
East Leg

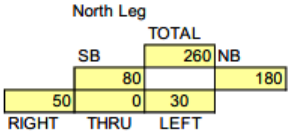


Cliff Drive **AT** **US-41**

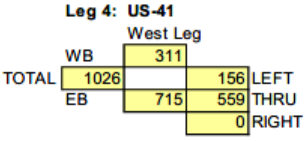
Turn Movement Diagram:

2041 AM Peak

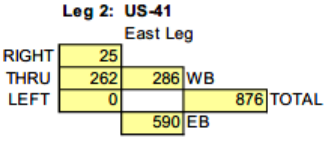
Leg 1: Cliff Drive
North Leg



Leg 4: US-41
West Leg



Leg 2: US-41
East Leg



Cliff Drive **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

4.45-5.45pm

Leg 1: Cliff Drive

North Leg

		TOTAL		
	SB	332		NB
	258			73
224	0	34		
RIGHT	THRU	LEFT		

Leg 4: US-41

West Leg

	WB	832		
TOTAL	1361		68	LEFT
	EB	528	460	THRU
			0	RIGHT

Leg 2: US-41

East Leg

RIGHT	5			
THRU	608	613	WB	
LEFT	0		1107	TOTAL
		494	EB	

Cliff Drive **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak

Leg 1: Cliff Drive

North Leg

		TOTAL		
	SB	366		NB
	285			81
248	0	37		
RIGHT	THRU	LEFT		

Leg 4: US-41

West Leg

	WB	920		
TOTAL	1504		76	LEFT
	EB	584	508	THRU
			0	RIGHT

Leg 2: US-41

East Leg

RIGHT	6			
THRU	672	677	WB	
LEFT	0		1223	TOTAL
		546	EB	

Lake Street **AT** **US-41**

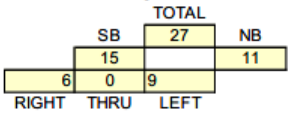
Turn Movement Diagram:

2021 AM Peak

8:45-9:45am

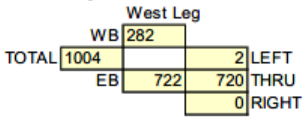
Leg 1: Lake Street

North Leg



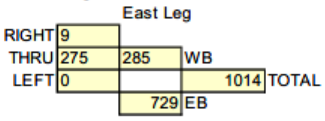
Leg 4: US-41

West Leg



Leg 2: US-41

East Leg



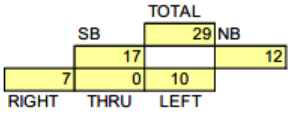
Lake Street **AT** **US-41**

Turn Movement Diagram:

2041 AM Peak

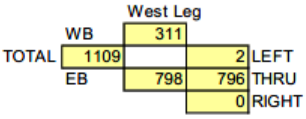
Leg 1: Lake Street

North Leg



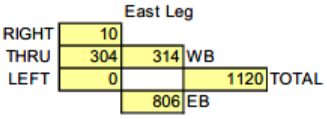
Leg 4: US-41

West Leg



Leg 2: US-41

East Leg



Lake Street **AT** **US-41**

Turn Movement Diagram:

2021 PM Peak

4.45-5.45pm

Leg 1: Lake Street

North Leg

		TOTAL	
	SB	54	NB
	20		34
10	0	10	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	813	
TOTAL 1378		18	LEFT
	EB 565	547	THRU
		0	RIGHT

Leg 2: US-41

East Leg

RIGHT	15		
THRU	803	818	WB
LEFT	0		1375 TOTAL
		557	EB

Lake Street **AT** **US-41**

Turn Movement Diagram:

2041 PM Peak

Leg 1: Lake Street

North Leg

		TOTAL	
	SB	60	NB
	23		37
11	0	11	
RIGHT	THRU	LEFT	

Leg 4: US-41

West Leg

	WB	898	
TOTAL 1523		20	LEFT
	EB 624	604	THRU
		0	RIGHT

Leg 2: US-41

East Leg

RIGHT	17		
THRU	887	904	WB
LEFT	0		1519 TOTAL
		615	EB

Pedestrian Count

US-41 @ Macinnes Drive

Leg 1: Maccinnes Drive

	North Leg
Am Peak	89
PM Peak	36
24 Hour Total	775

Leg 4: US-41

	West Leg
Am Peak	38
PM Peak	25
24 Hour Total	386

Leg 2: US-41

	East Leg
Am Peak	97
PM Peak	69
24 Hour Total	1044

Leg 3: Maccinnes Drive

	South Leg
Am Peak	10
PM Peak	20
24 Hour Total	179

US-41 @ East Street

Leg 4: US-41

	West Leg
Am Peak	2
PM Peak	2
24 Hour Total	20

Leg 2: US-41

	East Leg
Am Peak	0
PM Peak	0
24 Hour Total	3

Leg 3: Easy Street

	South Leg
Am Peak	27
PM Peak	33
24 Hour Total	345

US-41 @ Blanche Street

Leg 4: US-41

	West Leg
Am Peak	0
PM Peak	4
24 Hour Total	43

Leg 2: US-41

	East Leg
Am Peak	1
PM Peak	10
24 Hour Total	34

Leg 3: Blanche Street

	South Leg
Am Peak	20
PM Peak	20
24 Hour Total	269

US-41 @ Hubbell Street

Leg 1: Hubbell Street

	North Leg
Am Peak	43
PM Peak	35
24 Hour Total	421

Leg 4: US-41

	West Leg
Am Peak	5
PM Peak	4
24 Hour Total	44

Leg 2: US-41

	East Leg
Am Peak	49
PM Peak	28
24 Hour Total	334

Leg 3: Hubbell Street

	South Leg
Am Peak	17
PM Peak	14
24 Hour Total	235

US-41 @ Clark Street

Leg 4: US-41

	West Leg
Am Peak	67
PM Peak	49
24 Hour Total	608

Leg 2: US-41

	East Leg
Am Peak	2
PM Peak	0
24 Hour Total	6

Leg 3: Clark Street

	South Leg
Am Peak	12
PM Peak	21
24 Hour Total	236

US-41 @ Houghton Avenue

Leg 4: US-41

	West Leg
Am Peak	0
PM Peak	3
24 Hour Total	28

Leg 2: US-41

	East Leg
Am Peak	47
PM Peak	37
24 Hour Total	602

Leg 3: Houghton Avenue

	South Leg
Am Peak	4
PM Peak	10
24 Hour Total	171

US-41 @ Cliff Drive

Leg 1: Cliff Drive

	North Leg
Am Peak	0
PM Peak	0
24 Hour Total	13

Leg 4: US-41

	West Leg
Am Peak	0
PM Peak	0
24 Hour Total	2

Leg 2: US-41

	East Leg
Am Peak	0
PM Peak	1
24 Hour Total	14

US-41 @ Lake Street

Leg 1: Lake Street

	North Leg
Am Peak	22
PM Peak	22
24 Hour Total	271

Leg 4: US-41

	West Leg
Am Peak	0
PM Peak	0
24 Hour Total	5

Leg 2: US-41

	East Leg
Am Peak	0
PM Peak	0
24 Hour Total	1

If you have any questions regarding this traffic analysis, please contact me at 517.241.3874.

Regards

Anu Sikka
Transportation Planner
Statewide Planning Division
Michigan Department of Transportation